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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,866	07/02/2003	Lenny Lipton	95194936.044021	6251

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REAL D - Patent Department
by Baker & McKenzie LLP
2001 Ross Avenue, Suite 2300
Dallas, TX 75201

EXAMINER	
RICE, ELISA M	

ART UNIT	PAPER NUMBER
2624	

NOTIFICATION DATE	DELIVERY MODE
11/27/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

reald@bakernet.com

Office Action Summary	Application No.	Applicant(s)	
	10/613,866	LIPTON ET AL.	
	Examiner	Art Unit	
	ELISA M. RICE	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 10-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/11/2009 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1, 13, and 16 have been considered but are moot in view of the new grounds of rejection as the arguments are directed to the newly added claim limitations.

Claim Rejections - 35 USC § 101

In light of Applicant's arguments, the 35 U.S.C. 101 rejection of claims 1 and 16 have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1, 2, 7, 13, 14, 15, 16, and 17 are rejected under 35 U.S.C. 103(1) as being upatentable over Swift et al (US 2002/0122585 A1), hereinafter referred to as Swift 1, in view of Mical et al. (US 5481275).

Regarding claim 1, 13, and 16, Swift 1 discloses a method for converting an input image having a first format to an output image having a second stereoscopic format, wherein the input image and the output image are each defined by a plurality of pixels, comprising:

receiving the input image having the first format at a format converter (Swift 1, script buttons, paragraph 50) configured to receive input images in multiple formats (Swift 1, Fig. 1, item 12; Swift 1, "can store and preserve various types of stero media in various formats",paragraph 54) and convert input images in different formats into images having stereoscopic formats (Swift 1, Fig. 1, num. 16, 18, 20);;
converting each pixel of the input image to a corresponding pixel for the output image, thereby creating the output image (Swift 1, "monoscopic and stereoscopic viewing that allows greater distribution since both types can be viewed within one system; save and

conversion of one format into another from the Internet using a local drive from the original source," paragraph 27; Swift 1, paragraph 51 and 52);
formatting the output image based upon the validity (recombined scaled left and right media, Swift 1, figure 6, numeral 508, paragraph 0041); and displaying the formatted output image (Swift 1, "displays it on the user side according to the user's display preferences," paragraph 52).

Swift 1 inherently discloses using a map to set forth a predefined relationship between the first format and the second stereoscopic format to establish validity of the converting of the input image to the output image for a desired display method (Swift 1 reference, paragraph 58 and 59), thereby creating the output image. Turning to Figure 1, in order for the first media format to be converted to one of several stereoscopic formats such as line-interleaved, cross-eye, etc., the processor will need to use a formula, mathematical equation or predefined relationship of some sort to get from the input format (which in this case would be item 12, of fig. 1 to one of the stereoscopic formats depicted on the right hand side, such as item 18, of figure 1. In order words, a predefined relationship, which will vary depending on the input format and output format, will be relied upon by the processor to convert the input image to the output image. As discussed in paragraph 50, script buttons are used to change the formatting and by necessity, the script buttons, (i.e. format converter) require a predetermined relationship to map the pixel elements of an input image to those of the second format output image. A formula of some kind is utilized by the script button to effect this change

Swift 1 teaches wherein identifying display methods that are compatible with the source format of the input image; allowing a desired display method to be chosen from identified compatible display methods, the desired display method corresponding to the desired stereoscopic format as shown in Fig 8, num. 902, which shows a webpage with several display format options, the script buttons.
However, Swift does not explicitly use a support table matrix, or look-up table, to change from one format to another.

Mical teaches using a support table matrix, or look-up table, to change from one format to another (Mical, "code-conversion tables," column 1, lines 25-lines 30; Mical, "A RAM (not shown in FIG. 1), which functions as a color look-up table (CLUT), may be included in system 100 to convert the 5/5/4-bit-wide formatted RGB data of data structure 126 into 8/8/8-bit-wide formatted RGB data so as to provide a 24 shading-bits-per pixel RGB format.", column 9, lines 2-6).

Swift and Mical are both in the same field of endeavor of stereoscopic display systems. It, therefore, would have been obvious to one of ordinary skill in the art to modify the invention of Swift to include the look-up or code conversion tables as taught by Mical in order to replace a runtime computation with a simpler array indexing operation, which is a well-known benefit of look-up tables which a person of ordinary skill in the art would know.

Regarding claim 2 and 17, the combination of Swift 1 and Mical discloses a method according to Claim 1,wherein the converting step includes creating the map specifically as a support table matrix that sets forth predefined relationships between one type of

format as an input image and another type of stereoscopic format as an output image (Mical, "code-conversion tables," column 1, lines 25- lines 30; Mical, "A RAM (not shown in FIG. 1), which functions as a color look-up table (CLUT), may be included in system 100 to convert the 5/5/4-bit-wide formatted RGB data of data structure 126 into 8/8/8-bit-wide formatted RGB data so as to provide a 24 shading-bits-per pixel RGB format.", column 9, lines 2-6).

Regarding claim 7, the combination of Swift 1 and Mical discloses the method of claim 1, wherein the input image is a planar image, further comprising creating a stereo image pair from the planar image (Swift 1, paragraph 46, first sentence; Swift 1, "converting a 2D object movie to a 3D stereoscopic object movie", paragraph 30).

Regarding claim 14, the combination of Swift 1 and Mical discloses a device according to claim 13, wherein the software-enabled matrix contains for each type of image format a pre-defined correspondence between a pixel from the input image and a pixel for the output image (Mical, "code-conversion tables," column 1, lines 25- lines 30; Mical, "A RAM (not shown in FIG. 1), which functions as a color look-up table (CLUT), may be included in system 100 to convert the 5/5/4-bit-wide formatted RGB data of data structure 126 into 8/8/8-bit-wide formatted RGB data so as to provide a 24 shading-bits-per pixel RGB format.", column 9, lines 2-6).

Regarding claim 15, the combination of Swift 1 and Mical discloses the method of claim 1, wherein the first format is planar (Swift 1, "converting a 2D object movie to a 3D stereoscopic object movie", paragraph 30).

4. Claims 3-6, 8-12 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Swift et al (US 2002/0122585 A1) and Mical et al. (US 5481275), further in view of Loveridge et al (US 5,982,941).

Regarding claims 3-6, while the combination of Swift 1 and Mical discloses a method according to Claim 1, the combination of Swift 1 and Mical does not disclose converting the color space of the input image; scaling the input image; creating additional views as needed; swapping views; preparing a presentation of the output image for a particular format type; centering the presentation; formatting the presentation thereby creating a formatted output image; displaying the formatted output image; inverting the input image after the scaling step and before the creating; aligning the views after the creating step and before the swapping step; and arranging a predefined view wherein a single frame contains nine vies, then interzigging the views after the swapping step and before the preparing step.

Loveridge teaches converting the color space of the input image (Loveridge, figure 3, numeral 118); scaling the input image (Loveridge, figure 3, numeral 120); creating additional views as needed (Loveridge, figure 3, numeral 122); swapping views (Loveridge, figure 3, numeral 122, 124); preparing a presentation of the output image for a particular format type (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); centering the presentation (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); formatting the presentation thereby creating a formatted output image (Loveridge, figure 3, numeral 128); displaying the formatted output image (Loveridge, figure 3, numeral 82); inverting the input image after the scaling step and before the creating step (Loveridge, column 6, lines 9-67); aligning the views after the creating step and before the swapping step (Loveridge, column 6, lines 9-67) and arranging a predefined view wherein a single frame contains nine vies, then interzigging the views after the swapping step and before the preparing step (Loveridge, column 6, lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Swift 1 and Mical's converting step to include Loveridge's method steps in order "to achieve improved performance characteristics, such as reduced noise, improved sharpness" as discussed in the Loveridge reference at col. 3, lines 61-67.

Regarding claim 8, while the combination of Swift 1 and Mical discloses a method according to Claim 7, the combination of Swift 1 and Mical does not disclose scaling the

planar image by a fixed percentage to create a scaled image; copying the scaled image to create a complimentary image; shifting the complimentary image by a smaller percentage of the fixed percentage; extracting a centered image from the scaled image; and extracting a centered image from the shifted complimentary image.

Loveridge teaches scaling the planar image by a fixed percentage to create a scaled image (Loveridge, figure 3, numeral 120); copying the scaled image to create a complimentary image (Loveridge, figure 3, numeral 122); shifting the complimentary image by a smaller percentage of the fixed percentage (Loveridge, column 6, lines 9-67); extracting a centered image from the scaled image (Loveridge, figure 3, numeral 124); and extracting a centered image from the shifted complimentary image (Loveridge, column 6, lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Swift 1 and Mical's creating step to include Loveridge's method steps in order "to achieve improved performance characteristics, such as reduced noise, improved sharpness" as discussed in the Loveridge reference at col. 3, lines 61-67.

Regarding claim 10, while the combination of Swift 1, Mical, and Loveridge discloses shifting the complimentary image by a smaller percentage of the fixed percentage, the

combination of Swift 1, Mical, and Loveridge does not disclose expressly that the smaller percentage is half.

> At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a smaller percentage that is half. Applicant has not disclosed that the smaller percentage being half provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the smaller percentage taught by Loveridge or the smaller percentage being half because both percentage perform the same function of reducing the complimentary image for display purposes.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Loveridge to obtain the invention as specified in claim 10.

Regarding claim 11, the method claim is rejected under the same combinations, teachings, and motivation as claim 8.

Regarding claim 12, the method claim is rejected under the same combinations, teachings, and motivation as claim 10.

Regarding claim 18-21, while the combination of Swift 1 and Mical discloses a method according to Claim 16, the combination of Swift 1 and Mical does not disclose converting the color space of the input image; scaling the input image; creating additional views as needed; swapping views; preparing a presentation of the output image for a particular format type; centering the presentation; formatting the presentation thereby creating a formatted output image; displaying the formatted output image; inverting the input image after the scaling step and before the creating; aligning the views after the creating step and before the swapping step; and arranging a predefined view wherein a single frame contains nine views, then interzigging the views after the swapping step and before the preparing step.

Loveridge teaches converting the color space of the input image (Loveridge, figure 3, numeral 118); scaling the input image (Loveridge, figure 3, numeral 120); creating additional views as needed (Loveridge, figure 3, numeral 122); swapping views (Loveridge, figure 3, numeral 122, 124); preparing a presentation of the output image for a particular format type (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); centering the presentation (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); formatting the presentation thereby creating a formatted output image (Loveridge, figure 3, numeral 128); displaying the formatted output image (Loveridge, figure 3, numeral 82); inverting the input image after the scaling step and before the creating step (Loveridge, column 6, lines 9-67); aligning the views after the creating step and before the swapping step (Loveridge, column 6, lines 9-67) and arranging a predefined view

wherein a single frame contains nine vies, then interzigging the views after the swapping step and before the preparing step (Loveridge, column 6, lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Swift 1 and Mical's converting step to include Loveridge's method steps in order "to achieve improved performance characteristics, such as reduced noise, improved sharpness" as discussed in the Loveridge reference at col. 3, lines 61-67.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELISA M. RICE whose telephone number is (571)270-1582. The examiner can normally be reached on 12:00-8:30p.m. EST Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571)272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elisa M Rice/
Examiner, Art Unit 2624

/VIKKRAM BALI/
Supervisory Patent Examiner, Art Unit 2624